Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



For exchange of information on nutrition programs and activities

NUTRITION

PROUBLEM RECTION

CURRENT SERIAL RECORDS

U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.

MARCH-APRIL 1973

Food Guides-Where Do We Go From Here?

MARY M. HILL! Consumer and Food Economics Institute

Foods in the marketplace have changed considerably in recent years. We find increasing numbers of ready-prepared combinations of foods, such as stews, soups, both canned and frozen casserole-type dishes, and bakery products, as well as complete and partially complete frozen meals. These traditional foods in modern packages can—with a little judgment—fit into food guides.

On the other hand, fabricated foods, such as meat analogs and synthetic fruit beverages with vitamin C added, cannot be fitted into groupings of traditional foods. These foods are not nutritional substitutes for meat or fruit juices. Usually, they are fabricated only in terms of nutrients for which human requirements have been established. They represent only about one-third of the 45 to 50 nutrients we know are needed. Some essential nutrients may not have been identified.

To help people make better food choices, some nutritionists advocate teaching food selection in terms of nutrients. There are at least two major difficulties in teaching this way.

One is that there are large gaps in our information about the nutrient composition of foods. For example, it is currently almost impossible to derive consistently sound values for mixed dishes.

Many companies do not care to release their formulas because of the competition in this field, and also because the formulas they use are constantly being altered. This situation should improve as a result of current cooperative efforts by the U.S. Department of Agriculture, the Food and Drug Administration, and the food industry to establish a nutrient data research center.

A second large problem is the difficulty that faces nutrition workers who try to assess the readiness for nutrition information of the consumers being taught. We must remember that there is no sequential program of any consequence in the Nation's schools to provide the background that students need to really comprehend and apply scientific information on nutrients. People often seem to have the

necessary vocabulary, but much of this terminology has been learned from advertising and the mass media, and it lacks meaning in the mind of consumers. The situation is similar to being able to pronounce the words of a foreign language without knowing what the words mean or how to assemble them into coherent sentences.

When we teach mathematics, we start with simple units and teach progressivley towards higher mathematics, such as calculus. We certainly do not start with calculus. People buy food, they eat and enjoy food, and if we are going to teach them to select and ingest a good assortment of nutrients in appropriate amounts, we will have to start with what they know and enjoy—food.

Revised, recommended dietary allowances are expected in a year or, perhaps, a little less. They may necessitate revisions in the tools designed to help people select a good diet. However, the need to interpret current tools in terms of new food products now available appears to warrant immediate attention.

In this issue of Nutrition Program News, we will suggest one way to use a food guide based on food groupings and to include some information on why choices from these food groups are important to individuals. For this discussion, we will use the USDA Daily Food Guide as an example of a springboard to better understanding of food selection, without ignoring either mixed dishes or fabricated foods.

START WITH FOOD

Milk and milk products

Foods Included

Milk . . . fluid whole, evaporated, skim dry, buttermilk. Cheese . . . cottage, cream, Cheddar type—natural or processed.

Ice cream.

Amount Recommended

Some milk every day for everyone.

Recommended amounts are given below in terms of whole fluid milk:

8	-ounce cups
Children under 9	.2 to 3
Children 9 to 12	.3 or more
Teenagers	.4 or more
Adults	.2 or more
Pregnantwomen	.3 or more
Nursingmothers	.4 or more

Part or all of the milk may be fluid skim milk, buttermilk, evaporated milk, or dry milk.

Cheese and ice cream may replace part of the milk. The amount required to replace a given quantity of milk is figured on the basis of calcium content. Common portions of various kinds of cheese and of ice cream and their milk equivalents in calcium are:

1 inch cube Cheddar-type cheese	$= \frac{1}{2}$ cup milk
½ cup cottage cheese	$= \frac{1}{3}$ cup milk
2 tablespoons cream cheese	= 1 tablespoon milk
½ cup ice cream or ice milk	$= \frac{1}{3}$ cup milk

Contribution to Diet

Milk is our leading source of calcium, which is needed for bones and teeth. It also provides high-quality protein, riboflavin, vitamin A, and many other nutrients.

Calcium

Calcium is the most abundant mineral element in the body. Teamed up with phosphorus, it is largely responsible for the hardness of bones and teeth. About 99 percent of the calcium in the body is found in these two tissues.

The small amount of calcium in other body tissues and fluids aids in the proper functioning of the heart, muscles, and nerves, and helps the blood coagulate during bleeding.

- Calcium is not absorbed into the body completely.
- The extent of absorption varies with individuals and conditions.
- Human adults can be expected to absorb from 20 to 50 percent of calcium in a mixed diet.

Milk is outstanding as a source of calcium. Appreciable amounts are contributed by cheese (especially the Cheddar types), ice cream, certain dark-green leafy vegetables (collards, kale, mustard greens, turnip greens), and canned sardines (if the bones are eaten).

Riboflavin-one of the B vitamins

- Helps cells use oxygen to release energy from food.
- Helps keep eyes healthy.
- Helps keep skin around mouth and nose smooth.

Fruits and Vegetables

Foods Included

All vegetables and fruit. This guide emphasizes those that are valuable as sources of vitamin C and vitamin A.

Amount Recommended

Choose four or more servings every day, including: one serving of a good source of vitamin C, or two servings of a fair source.

one serving, at least every other day, of a good source of vitamin A. If the food chosen for vitamin C is also a good source of vitamin A, the additional serving of a vitamin A food may be omitted.

The remaining one to three or more servings may be of any vegetable or fruit, including those that are valuable for vitamin C and vitamin A.

Count as one serving: ½ cup of vegetable or fruit, or a portion as ordinarily served, such as one medium apple, banana, orange, or potato; half a medium grapefruit or cantaloup; or the juice of one lemon.

Contribution to Diet

Fruits and vegetables are valuable, chiefly because of the vitamins and minerals that they contain. In this plan, these foods are relied on to supply nearly all the vitamin C needed and over one-half of the vitamin A.

Vitamin C is needed for healthy gums and body tissues. Vitamin A is needed for growth, normal vision, and healthy condition of skin and other body surfaces.

Vitamin C

- Helps hold body cells together and strengthens walls of blood cells.
- Helps build bones and teeth.
- Helps in healing wounds.
- Helps resist infection.

Sources of Vitamin C

Good sources—Grapefruit or grapefruit juice, oranges or orange juice, cantaloups, guava, mangoes, papaya, raw strawberries, broccoli, brussels sprouts, green peppers, and sweet red peppers.

Fair sources—Honeydew melons, lemons, tangerines or tangerine juice, watermelons, asparagus tips, raw cabbage, cauliflower, collards, garden cress, kale, kohlrabi, mustard greens, potatoes and sweet potatoes cooked in the jacket, rutabagas, spinach, tomatoes or tomato juice, and turnip greens.

Vitamin A

- Helps eyes adjust to dim light.
- Helps keep lining of mouth, nose, throat, and digestive tract healthy and resistant to infection.
- Keeps skin healthy.
- Promotes growth.

Vitamin A occurs only in foods of animal origin. However, many vegetables and fruits, particularly the green and yellow ones, contain a substance called carotene that the body can change into vitamin A.

Liver is outstanding for vitamin A. Important amounts are found also in eggs, butter, margarine, whole milk, and cheese made with whole milk. Carotene is found in largest amounts in dark-green and deep-yellow vegetables and in deep-yellow fruits.

Fiber

Fiber provides bulk in diets and promotes motility and health of the gastrointestinal tract.

Foods that are bulky, coarse, or watery crisp are sources of fiber. Sometimes, foods as we know them are fine or smooth, but are also sources of fiber. Examples are cocoa and chocolate that have been ground. Other good fiber sources include fruits and vegetables, such as apples, plums, pineapples, carrots, celery, and cabbage; legumes, such as dried peas and beans; and whole grain cereals.

Bread and Cereals

Foods Included

All breads and cereals that are whole grain, enriched, or restored; check labels to be sure.

Specifically, this group includes: breads, cooked cereals, ready-to-eat cereals, cornmeal, crackers, flour and grits, macaroni and spaghetti, noodles, rice, rolled oats, and quick breads and other baked goods, if made with whole grain or enriched flour. Parboiled rice and wheat may also be included in this group.

Amounts Recommended

Choose four servings or more daily, or if no cereals are chosen, have an extra serving of breads or baked goods. This will make at least five servings from this group daily.

Count as one serving: one slice of bread; 1 ounce readyto-eat cereal; ½ to ¾ cup cooked cereal, cornmeal, grits, macaroni, noodles, rice, or spaghetti.

Contribution to Diet

Foods in this group furnish worthwhile amounts of protein, iron, several of the B vitamins, and food energy. Small amounts of many other nutrients may also be present.

Food Energy

- Energy is needed to support the many functions of the body at work or play.
- Energy comes from fats, carbohydrates, and proteins in the food you eat.
- Fat is the most concentrated source of energy—it supplies more than twice as much energy for a given weight as protein or carbohydrate.
- Energy is measured in calories.
- Alcohol also supplies energy and ranks next to fat as a source—providing about three-fourths as much energy as an equal weight of fat.

All foods furnish calories, some much less in a given

serving than others. Foods that contain appreciable amounts of water are relatively low in calories, because water has no caloric value and thus dilutes the energy-yielding nutrients. Many fresh fruits and vegetables are in this category. However, when sugar, fats, or cream are added to them, calories increase.

Foods rich in fat, starch, or sugar, and beverages high in alcohol, are rich in calories.

Meat or Alternates

Foods Included

Beef, veal, lamb, pork, variety meats such as liver, hearts, and kidneys.

Poultry and eggs.

Fish and shellfish.

As alternates—dry beans, dry peas, lentils, nuts, peanuts, peanut butter.

Amounts Recommended

Choose two or more servings every day.

Count as a serving: 2 to 3 ounces (not including bone weight) cooked lean meat, poultry, or fish.

Count as alternates for ½ serving meat or fish: one egg; ½ cup cooked dry beans, dry peas, or lentils; or 2 tablespoons peanut butter.

Contribution to Diet

Foods in this group are valued for their protein, which is needed for growth and repair of body tissues—muscle, organs, blood, skin, and hair. These foods also provide iron, thiamin, riboflavin, and niacin and other nutrients.

Protein

- Builds and repairs all tissues.
- Helps form antibodies to fight infection.
- Supplies food energy.
- Helps to make hemoglobin, the blood protein that carries oxygen to the cells and carries carbon dioxide away from the cells.
- To have daily meals rank well in protein quality, only part of the protein must come from animal sources. Combining cereal and vegetable foods with a little meat or with another source of animal protein will improve the protein value of the meal. Examples of nourishing combinations are cereal with milk, rice with fish, spaghetti with meat sauce, and vegetable stew with meat. You could simply have milk as a beverage along with foods of plant origin. It is a good idea to have some food from animal sources at each meal.
- You need protein all through life for the maintenance and repair of body tissues. Children urgently need protein for normal growth.

Important amounts of protein are found in meat, poultry, fish, milk, cheese, eggs, dry beans, dry peas, and nuts.

Bread, cereals, vegetables, and fruits contain relatively smaller amounts of protein. However, the quantity of bread—and perhaps of cereal—eaten daily may be large enough to make these foods important protein sources.

Iron

Iron combines with protein to make hemoglobin, the red substance of blood that carries oxygen from the lungs to muscle, brain, and other parts of the body.

Only a few foods contain much iron. Liver is a particularly good source. Lean meats, hearts, kidneys, shellfish, dry beans, dry peas, dark-green vegetables, dried fruit, egg yolks, and molasses also count as good sources. Whole grain and enriched bread and cereals contain smaller amounts of iron, but when eaten frequently become important sources.

Frequent use of foods that provide important amounts of iron is particularly encouraged for young children, preteen and teenage girls, and for women of child-bearing age. Research shows that these are the groups whose diets are most likely to be low in iron.

B Vitamins — Thiamin, niacin, and riboflavin (discussed above)

- Play a central role in release of energy from food.,
- Also help with proper functioning of nerves, normal appetite, good digestion, and healthy skin.

Generally, foods in the meat group are leading sources of these vitamins. Whole grain and enriched bread and cereals supply smaller but important amounts. A few foods are outstanding sources—milk for riboflavin, lean pork for thiamin, and organ meats for all three.

Getting enough niacin is not a problem if a good amount of protein is included in daily meals. An essential amino acid—tryptophan—present in protein can be changed by the body into niacin.

Other Foods

Many people want and need more food than the minimum servings suggested from the four food groups. To round out meals and satisfy appetites, you can include additional foods from the four groups, as well as other foods not listed in these groups. Such foods include unenriched, refined breads; cereals; flours; sugars; butter; margarine; and other fats. These are often ingredients in a recipe, or are added to other foods during preparation or at the table. Fabricated foods can also be included in this group.

Try to include some vegetable oil among the fats used.

Fats

Fats are concentrated sources of energy. Weight for weight, they give more than twice as much energy, or calories, as either carbohydrates or protein.

Everyone needs some fat. Primarily, the fats supply energy, but they also carry the fat-soluble vitamins A, D, E, and K.

Fats also

- Make up part of the structure of cells.
- Form a protective cushion around vital organs.
- Spare protein for body building and repair by providing energy.
- Supply an essential fatty acid, linoleic acid.

The body does not manufacture linoleic acid so it must be provided by food. It is found in valuable amounts in many oils that come from plants—particularly corn, cotton-seed, safflower, sesame, soybean, and wheat germ. These are referred to as "polyunsaturated" fats or oils. Margarines, salad dressings, mayonnaise, and cooking oils are usually made from one or more of these oils. Nuts contain less linoleic acid than do most vegetable oils. Poultry and fish oils have more linoleic acid than do other animal fats. which rank fairly low as sources.

In choosing daily meals, it is well to keep the total amount of fat at a moderate level and to include some foods that contain polyunsaturated fats.

Common sources of fats are: Butter, margarine, shortening, cooking and salad oils, cream, most cheeses, mayonnaise, salad dressings, nuts, and bacon and other fatty meats. Meats, whole milk, eggs, and chocolate contain some fat naturally. Many popular snacks, baked goods, pastries, and other desserts are made with fat or cooked in it.

PUTTING THE FOOD GUIDE TO WORK

The task is to combine foods into daily food intakes to meet family needs—nutrient needs of various family members, food preferences of family members, cost, and shopping and preparation time.

There are many choices within each group at varying cost levels. Beyond that, there are many methods of preparing foods within each group, so that the variety from which to select is great. When time and energy are a problem, partly and fully prepared foods are available at increased cost to cover the built-in maid service.

In recent years, nutrition workers have found it difficult to teach consumers how to place mixed dishes within the food groups. Consequently, a criticism of rigidity has been leveled at food guides as teaching tools.

Minimum servings of foods shown in the groups are not all the foods that people need to eat. They are the foods that, in specified amounts, provide a good nutritional foundation—not a fully adequate diet, because of the differences in needs of various family members. A 3-year-old does not have the same quantitative needs for either nutrients or food energy as does the teenager.

After the foundation has been laid, any choice can be made, and it will add nutrients and/or food energy. If choices are made from a wide variety of foods and food groups, the chances are enhanced that needs for both nutrients and energy will be met adequately.

Energy needs can be checked by watching weight. For example, if continued gradual weight gains that are not related to growth are noted, then some reduction in food intake is needed. Cut back on foods not included in the nutritional foundation, particularly fats, alcohol, sugars, and the like. Be sure that amount of exercise is also taken into account. The best way is to both cut back on food and increase physical activity. Continue this until intake and output of energy are in balance—and weight remains constant at a desirable level. (If more than 10 to 15 pounds are to be lost, a physician should be consulted.)

On the other hand, if a gradual loss of weight is noted, a reverse action is indicated: more food and less exercise, plus the help of a physician if more than 10 to 15 pounds are to be gained.

Unfortunately, so much emphasis has been placed on the minimum servings needed from each of the four food groups, that many people think that these minimum servings are all that they should have. The meals that result are found to be unsatisfying—which they well may be. Our task is to emphasize the flexibility permitted by all the additional food choices that round out meals and that help meet individual needs.

The difficulty in placing mixed dishes in the groupings can be overcome. A mixed dish that contains meat and vegetables, for example, can be assigned to two groups.

Suppose we are using a commercially prepared meatand-vegetable stew. In a one-cup serving, you would probably have approximately one-half to one serving of meat and a one-half to one serving of vegetable. This can be checked occasionally by taking the meat out and measuring it. The same can be done with the vegetables.

It might help you to estimate if you looked at the list of ingredients on the label. If vegetables are the second ingredient (water will probably be first, with meat third), you have probably made a reasonable estimate. If meat is about the fifth ingredient, the content of meat should be measured. If it does not weigh 2 ounces, it can still be appropriately assigned—1 ounce would be one-half a portion. A few measurements will help to build judgment. Cutting cans and measuring their contents makes an excellent learning activity.

Questions have been raised by nutritionists concerning

the use of fabricated foods, such as fruit-flavored beverages with vitamin C added. Although of course they do contain vitamin C, they are not substitutes for traditional food sources of this nutrient. They do make a contribution to the diet, but not in the nutritional foundation. On pages 7 and 8 are 2 days' food intake for an adult, showing how some of these foods can be included if the teaching tool—the Daily Food Guide—is used in its entirety.

In this issue of NPN, we have presented much more information than an individual can be expected to absorb in one sitting. There is enough information here to be the basis for fifteen to twenty 90-minute lessons. However, the presentation of information alone gives no assurance that diets will be upgraded. Behavioral changes result when individuals actually apply information to themselves.

Telling how to apply information is not enough. The learner needs an opportunity to use what has been taught in his or her own menus, taking into account such items as cost, time to shop for and prepare food, and of course food preferences. People need this experience while the nutrition worker is present to set them straight if there is any misinterpretation. This type of activity also provides an excellent means for teachers to evaluate their own communication skills.

When nutrition information is presented, there should also be experience with food. There is always a need to help people extend the variety of food that they will eat and enjoy. Good food adds to the joy of living, and the teaching of food selection should never bypass this fact.

Food is good! If appropriately prepared, it looks good and tastes good. Wise choices of food can also look good and taste good. In these instances, the fact that it is good for you is a bonus.

Not everyone wants the same amount of information, and it is the right of the consumer to decide how much he wants. It is important for the nutrition worker to assess the group of consumers and to decide how much nutrition information and at what level to teach food selection if the teaching is to effect behavioral changes in food habits.

Our objective as nutrition workers is not to tell all we know about food selection in one or many easy lessons, but rather to help as many people as possible to upgrade their diets where such upgrading is needed.

MATERIALS

These materials are listed for the information of readers. The listing does not necessarily imply a recommendation by the U.S. Department of Agriculture of materials not published by the Department. Materials or information may be obtained from the addresses given. Symbols refer to:

GPO —Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

COMM—Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250.

Food and Nutrition

Cooking for Small Groups. 1972. Home and Garden Bulletin No. 197, U.S. Department of Agriculture. GPO 15 cents. Single copies free, COMM.

Eat a Good Breakfast . . . To Start a Good Day. Slightly rev. 1972. Leaflet No. 268. U.S. Department of Agriculture. GPO 10 cents. Single copies free, COMM.

Energy Value of Foods . . . Basis and Derivation. Slightly rev. 1973. Agricultural Handbook No. 74. U.S. Department of Agriculture. GPO \$1.25.

Food Buying Guide for Type A School Lunches. Rev. 1972. Program Aid No. 270. U.S. Department of Agriculture. GPO. \$3.00.

Food Guide for Older Folks. Slightly rev. 1973. Home and Garden Bulletin No. 17. U.S. Department of Agriculture. Single copies free, COMM.

Food Makes the Difference: Ideas for Economy-Minded Families. Rev. 1972. Program Aid No. 934. U.S. Department of Agriculture. Single copies free, COMM.

Food Selection for Good Nutrition in Group Feeding. Rev. 1972. Home Economics Research Report No. 35. U.S. Department of Agriculture. GPO 40 cents. Single copies free, COMM.

Ideas for Leaders Working with Economy-Minded Families. Slightly rev. 1972. Program Aid No. 937. U.S. Department of Agriculture. GPO 10 cents.

Food Consumption

Single copies *free* from COMM for each of the 16 Survey Reports listed.

Household Food Consumption Survey 1965–66. U.S. Department of Agriculture:

Report No. 1 Food Consumption of Households in the United States, Spring 1965. 1968.

Report No. 2 Food Consumption of Households in the Northeast, Spring 1965. 1968.

Report No. 3 Food Consumption of Households in the North Central (Region), Spring 1965. 1968. GPO \$1.50.

Report No. 5 Food Consumption of Households in the West, Spring 1965. 1968. GPO \$1.50.

Report No. 6 Dietary Levels of Households in the United States, Spring 1965. 1969.

Report No. 7 Dietary Levels of Households in the Northeast, Spring 1965. 1970. GPO \$1.00.

Report No. 8 Dietary Levels of Households in the North Central Region, Spring 1965. 1970. GPO \$1.00.

Report No. 9 Dietary Levels of Households in the South, Spring 1965. 1970.

Report No. 10 Dietary Levels of Households in the West, Spring 1965. 1970. GPO \$1.00.

Report No. 11 Food and Nutrient Intake of Individuals in the United States, Spring 1965. 1972. GPO \$2.50.

Report No. 12 Food Consumption of Households in the United States, Seasons and Year. 1965–66. 1972. GPO \$1.75.

Report No. 13 Food Consumption of Households in the Northeast, Seasons and Year, 1965–66. 1972. GPO \$1.75.

Report No. 14 Food Consumption of Households in the North Central Region, Seasons and Year, 1965–66. 1972. GPO \$1.75.

Report No. 15 Food Consumption of Households in the South, Seasons and Year, 1965–66. 1973. GPO \$1.75.

Report No. 16 Food Consumption of Households in the West, Seasons and Year, 1965–66. 1973. GPO \$1.75.

Report No. 17 Food Consumption of Households by Money Value of Food and Quality of Diet, United States, North, South. 1972. GPO \$1.75.

Practices of Low-Income Families in Feeding Infants and Small Children with Particular Attention to Cultural Subgroups. Proceedings of a National Workshop. Edited by Samuel J. Fomon and Thomas A. Anderson. U.S. Department of Health, Education, and Welfare. 1972. GPO \$1.25.

Applied Nutrition

Food and Nutrition Education in the Primary School. FAO Nutritional Studies No. 25. Food and Agriculture Organization of the United Nations. 1971. Order from: UNIPUB, Inc., 650 First Avenue, P.O. Box 433, New York, N.Y. 10016. \$2.50.

Nutrition References and Book Reviews, Revised 1972. Compiled by The Chicago Nutrition Association. Order from: Department of Food and Nutrition, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610. \$1.50.

Visuals

Nutrient Teaching Charts. Revised 1972. National Dairy Council. Packet includes eight charts (16 x 24 inches), eight-page leaders' guide, and cube model to assemble. These and other educational materials are available to home economics professionals from their local

Dairy Council office. For name of nearest office, contact the National Dairy Council, 111 North Canal Street, Chicago, Ill. 60606.

Nutritional Awareness Educational Program, featuring ethnic group food posters with lesson plans. Created

by Family Circle Magazine in cooperation with the Food Council of America. Nutritional Awareness Kits (three posters and lesson plans) at \$3.00 per kit. Order from: Bette Stack, Family Circle, 488 Madison Avenue, New York, N.Y. 10022.

(Continued From Page 5)

A Day's Food Intake for an Adult Based on Specified Amounts per Serving as Listed in the Food Guide

Breakfast

Orange-flavored beverage with vitamin C added Cornflakes with milk

Coffee

Midmorning snack

Danish pastry (possibly unenriched) Milk

Midday meal

Cream of tomato soup Tunafish salad sandwich Vanilla ice cream with fresh strawberries

Hot tea

Dinner

Cocktails—Cheddar cheese canapes

Roast beef Baked potato with sour cream and chives

Spinach souffle Lettuce and tomato salad with oil and vinegar dressing

Roll and butter or margarine Baked apple

The Nutritional Foundation of this Day's Food for an Adult

Milk Group	Fruit-Veg. Group	Meat or Alternate	Bread—Cereal, Enriched or
2 Cups	4 Servings	2 Servings	Whole Grain—4 Servings
1/2 c. with cereal 1/2 c. in cream soup 1 c. as beverage	1 serv. baked potato 1 serv. lettuce and tomato 1 serv. baked apple 1/2 serv. strawberries 1/2 serv. spinach	1 serv. tunafish 1 serv. roast beef	1 serv. cornflakes 2 serv. bread in sandwich 1 serv. roll

Foods That Provide Additional Nutrients and Food Energy to Meet Individual Needs

Foods From Four Food Groups	Other Foods
Seconds from the foundation foods 1/2 serv. tomatoes in soup 1/2 c. milk equivalent in Cheddar cheese	Orange-flavored beverage with vitamin C added 1 serv. Danish pastry
Remaining ingredients in souffle Lettuce on the tuna salad sandwich	Mayonnaise on sandwich Dressing on salad
Chives—with baked potato 1/2 serv. bread in canapes	Sugar added to tea and coffee Alcohol in the cocktails

A Day's Food Intake for an Adult Based on Specified Amounts per Serving as Listed in the Food Guide

Early morning
Instant breakfast
(Milk plus instant breakfast mix)

Midmorning snack

Toasted English muffin—butter or margarine and jam

Coffee

Midday meal

Hamburger French fries

Cole slaw

Apple tart

Cola drink

Evening meal

Chicken-vegetable casserole (carrots, pearl onions, asparagus) over rice Three-bean salad (oil and vinegar) Roll with butter or margarine

Banana pudding

Coffee

Evening snack
Cheese and crackers—beer

The Nutritional Foundation of this Day's Food for an Adult

Milk Group	Fruit–Veg. Group	Meat or Alternate 2 Servings	Bread–Cereal—Enriched
2 Cups	4 Servings		4 Servings
1 c. in instant breakfast 1/2 c. in banana pudding 1/2 c. as Cheddar cheese	1 serv. cole slaw 1 serv. french fries 1/2 serv. apple in tart 1/2 serv. veg. in casserole 1 serv. three-bean salad	1 serv. hamburger 1 serv. chicken	1 serv. English muffin 1 serv. hamburger roll 1 serv. dinner roll 1 serv. rice

Foods That Provide Additional Nutrients and Food Energy to Meet Individual Needs

Foods From Four Food Groups	Other Foods
Seconds from the foundation foods Banana in the pudding Crackers Ingredients in sauce of casserole Milk in coffee	Butter or margarine Jam Dressing used in cole slaw Cola drink Oil and vinegar dressing on bean salad Beer Sugar in coffee